

APPENDIX D

Comprehensive Non-Motorized Trails Program



Equestrian and bike use on project area trail.

COMPREHENSIVE NON-MOTORIZED TRAILS PROGRAM

Appendix D of the Settlement Agreement RMP presents the Comprehensive Non-motorized Trail Program for Project No. 2100. This program is the joint responsibility of DWR and DPR and includes a summary of the existing trails program (additional detail is provided in Section 6.5 of the Settlement Agreement RMP), background information regarding trail use designations, roles of trail providers, and an implementation plan. The goal of the Trails Program is to provide safe and enjoyable recreation trail access for walking, hiking, equestrian use, mountain bicycling and other dispersed uses such as shoreline and fishing access within the Project 2100 vicinity. A trails safety event open to all trail users will be held as needed, but no more frequently than annually, to promote safe and enjoyable trail recreation.

BACKGROUND

Existing Trails Program

There are approximately 75 miles of recreational non-motorized trails within the Project 2100 boundary (Table D-1 and Figure D-1). The majority of these are in the LOSRA, which offers about 52 miles of trails open to hikers and many segments additionally designated for use by equestrians and/or bicyclists. The California Public Resources Code grants DPR authority to allow horses and other stock animals use of specific areas within units of the State Park System (PRC 4359), and also provides that bicycles may be excluded from certain Park areas, trails, and roadways (PRC 4360). DPR also prescribes closures of certain LOSRA trails to dogs, and requires dogs to be leashed on others. Any user group may apply for a Special Use Permit, from the jurisdictional managing agency, to allow organized use and special events in areas or on trails whether or not such areas are normally open to that user group. Granting such requests is typically contingent on a case-by-case evaluation of safety, resource protection, and the needs of other visitors.

Currently, horses and stock animals are authorized in LOSRA only on the following trails and trail segments:

- Dan Beebe Trail from Lakeland Blvd. to the Saddle Dam;
- Roy Rogers Trail;
- Loafer Loop Trail;
- Multiple-use sections of the Potter's Ravine Trail; and
- The Loafer Creek Horse Camp.

Furthermore, bicycles are currently excluded from the following trails:

- Roy Rogers Trail;
- Loafer Loop Trail;
- Dan Beebe Trail from Lakeland Blvd. to the Saddle Dam;
- Wyk Island Trail;

- Visitors Center Trail; and
- Loafer Creek Campground, Day Use, and Campfire Trails.

Table D-1. Existing trails in the project area.

Trail	Length	Access	Health & Safety	
	Miles of Trail	Vehicle and Vehicle/Trailer Parking Spaces	Toilets	Trash Receptacles
Bidwell Canyon Trail	4.9	107 ² /477 ¹	4 ¹	3 ¹
Brad B. Freeman Trail	41.0	Various	-	-
Chaparral Interpretive Trail	0.2	107 ²	2 ²	6 ²
Dan Beebe Trail	14.3	Various	-	-
Loafer Creek Campground Trail/Day Use/Campfire Trail	1.7	251 ³	2 ³	2 ³
Loafer Creek Loop Trail	3.2	251 ³	1 ⁴	11 ⁴
Sewim Bo Trail	0.5	Unknown	2	Unknown
Potter's Ravine Trail	5.5	468 ⁵	2 ⁵	1 ⁵
Roy Rogers Trail	4.0	251 ³	2 ³	2 ³
Wyk Island Trail	0.2	477 ¹	4 ¹	3 ¹

Note: A dash indicates that there is no facility or that the category does not apply.

¹ *In the Bidwell Canyon area (boat ramp, marina, and overflow parking areas).*

² *At the Lake Oroville Visitors Center.*

³ *In the Loafer Creek Day Use Area.*

⁴ *In the northern Loafer Creek area.*

⁵ *At the Spillway area (upper parking area).*

Source: pers. comm., T. McBride 2003. Updated by EDAW 2004.

Outside the LOSRA, Project 2100 trails are generally managed to be consistent with trail designations on adjacent jurisdictions. For example, consistent with DFG management policies, bicycling and equestrian uses are permitted in the OWA but only on roads (the Brad Freeman Trail follows gravel roads around the Afterbay and through the portion of the OWA north of the Afterbay Outlet). Horses are also allowed in other areas of the OWA during permitted special events. However, DWR also manages the Brad B. Freeman Trail on other Project lands as a multiple-use trail, even though horses and stock animals are not allowed on some adjacent Freeman Trail segments within LOSRA. Section 6.5 of the Draft RMP describes in detail the trails within the project area.

Trail maintenance in the LOSRA is carried out by DPR, often in conjunction with a number of user groups and volunteer organizations, and with limited assistance from DWR. Volunteers such as the California State Parks Mounted Assistance Unit, and Bicycle Patrol Unit, regularly provide feedback about trail conditions throughout the study area. Volunteer and user groups also assist in implementing a variety of recreation-related projects. Boy Scout groups, fishing and hunting organizations,

Figure D-1. Existing non-motorized trails
FERC Project 2100

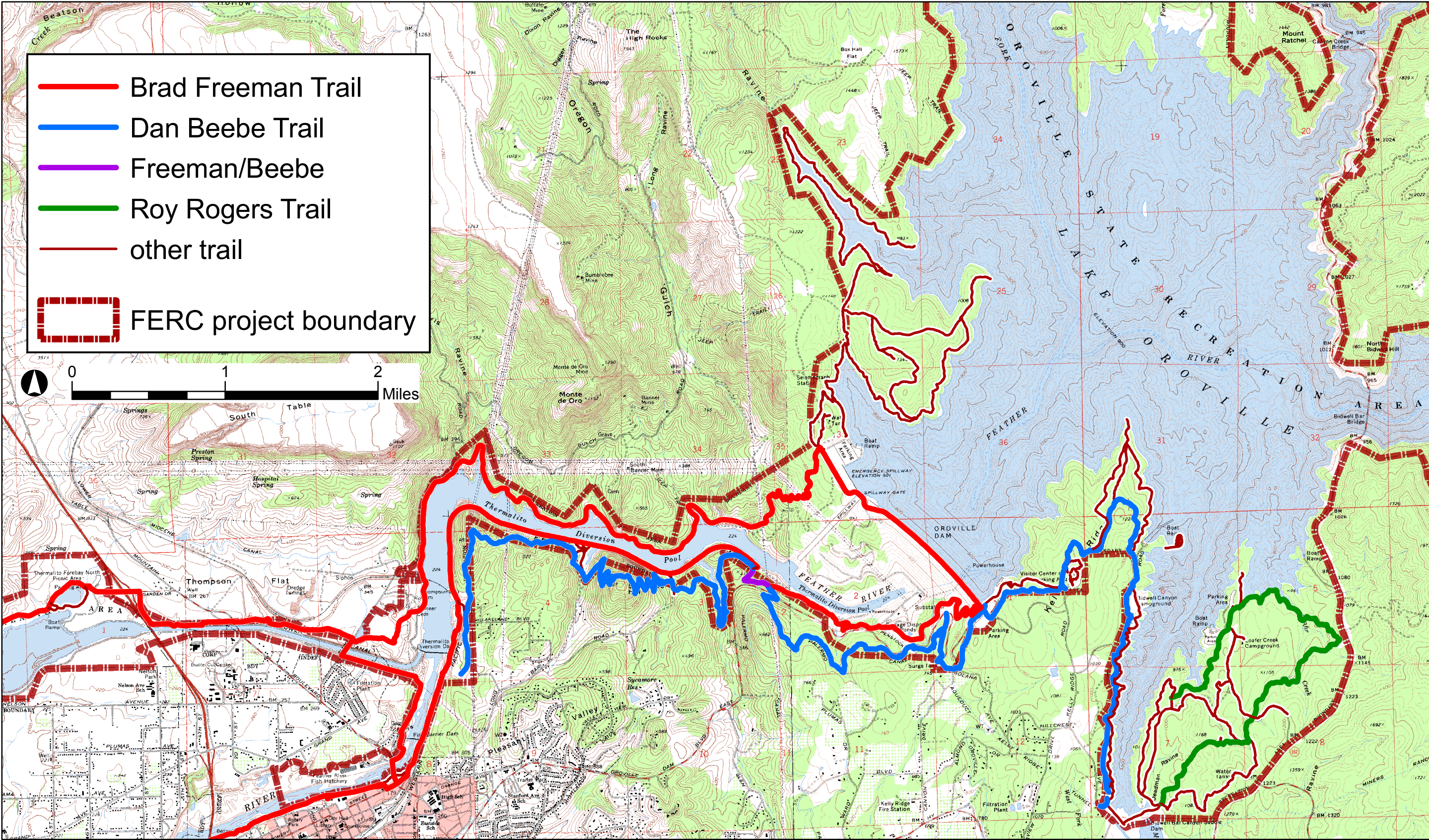
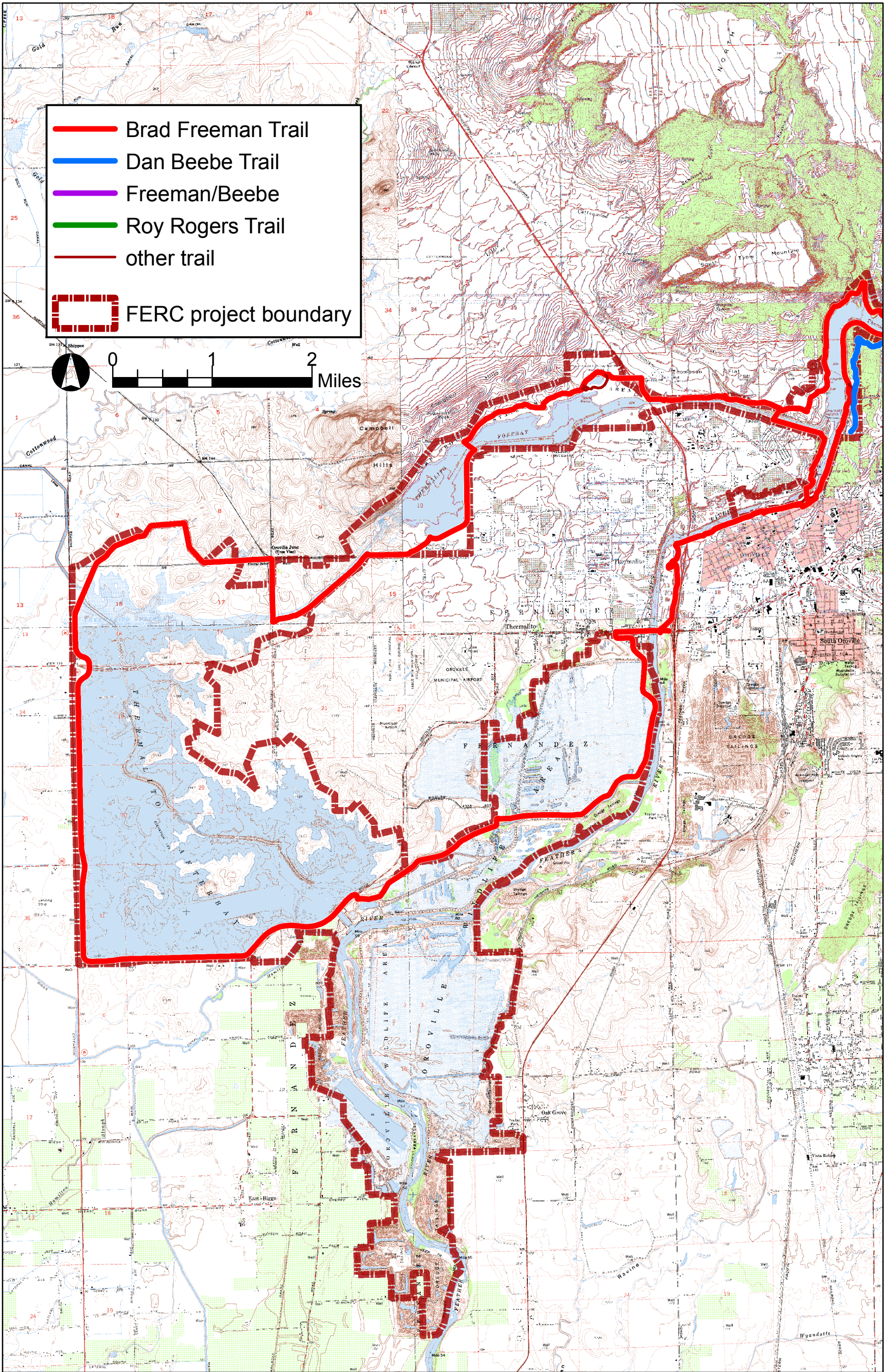


Figure D-1 (cont.). Existing non-motorized trails
FERC Project 2100



equestrian groups, and other user groups assist DPR to some degree in trail maintenance.

Current maintenance of trails within the Project area is considered good by those surveyed as part of *R-13 – Recreation Use Surveys*. At least 90 percent of respondents contacted at Lake Oroville, Diversion Pool, Low Flow Channel, Thermalito Forebay, and Thermalito Afterbay were satisfied with the condition of trails.

Trail Use Designations and Stakeholder Concerns

Trail use designations have been a controversial topic within the study area. Trail use designations have changed on occasion in recent years; in general, a trend toward multiple-use (where it can safely occur) has been recommended by DPR consistent with its Statewide trails planning responsibilities and policies. However, a February 2002 DPR Superintendent's Order that changed many LOSRA trails from segregated to multiple-use was rescinded in 2004, after FERC denied DWR's request to amend the 1993 Amended Recreation Plan in support of this change. Pursuant to direction from FERC, the trail use designation has been returned to that existing prior to the February 2002 DPR change and consistent with the 1993 Project No. 2100 Amended Recreation Plan.

Prior to 2002, about 21.5 miles of trails were hiking/equestrian use only and did not allow biking (Dan Beebe, Loafer Creek Loop, and Roy Rogers Trails). After the trails were changed to multiple-use in 2002, about 64.5 miles of the total 75 miles were available for biking and about 38.5 miles were available for equestrian use. Designated trails for hiking/biking/equestrian use totaled about 37 miles, followed by hiking/biking (about 28 miles). There were about 9 miles of hiking-only trails, and 1.6 miles of hiking/equestrian-only trail at Sycamore Hill on the Dan Beebe Trail. However, following the 2002 Superintendent's Order, some trail users in the study area voiced preference that these trails return to their previous use designations.

After submittal of the trails use amendment by DWR in 2002, DWR learned from FERC Relicensing staff that amendments central to new license terms and conditions are generally denied by FERC during any ongoing licensing process. In addition, objections presented to FERC contributed to FERC's denial of a Recreation Plan amendment, and effectively reversed the aforementioned changes prescribed by the Superintendent's Order. Trail use designations are now back to their pre-2002 designations.

ROLES OF TRAIL PROVIDERS

California Department of Parks and Recreation

DPR's Northern Buttes District manages the LOSRA and the trails within the LOSRA portion of the Project area. Routine tasks performed by DPR staff include maintaining about 52 miles of trails. General DPR management goals for LOSRA include improving trails, ensuring safety, protecting natural and cultural resources, and providing information to trail users and other Park visitors. In general, DPR has broad management authority, under the California Public Resources Code, to make decisions

regarding trail use and maintenance within units of the State Park System. Local needs and Statewide policy are both considered; at LOSRA, such management is periodically coordinated with DWR.

California Department of Fish and Game

DFG has management jurisdiction over lands within the OWA, and prescribes allowable recreation uses (including hiker, stock, and bicycle use of trails) consistent with preservation and enhancement of wildlife resources there. In general, DFG does not maintain any trail facilities. DWR and DFG periodically maintain the dirt and gravel roads in parts of the OWA, as needed, and in general these roads serve as trails in this portion of the Project.

California Department of Water Resources

DWR is responsible, under its existing FERC license, for the implementation of a variety of recreation-related projects and improvements including overall trails management. However, DWR does not manage the majority of the recreational opportunities and facilities in the Project area. Through various State codes cited previously and inter-agency agreements between DPR and DWR, DPR is DWR's management "partner" on the majority of Project No. 2100 recreational facilities.

DWR has constructed and manages substantial portions of the Brad B. Freeman Trail, supporting and assisting trail and sign maintenance activities periodically performed by trail user groups there. DWR has been solely responsible for maintaining gates, fences, and other major Freeman Trail features and appurtenances. Trail maintenance is generally on an as-needed basis and does not follow a prescribed schedule.

NON-MOTORIZED TRAILS PROGRAM IMPLEMENTATION

Implementation of this program includes proposed actions, estimated costs, and preliminary schedule for the proposed trail program. The purpose of the implementation plan is to outline when and how proposed trail-related actions will be put into operation. The proposed trail-related actions are described below; a draft schedule is proposed (see Schedule section) and costs are estimated (see Appendix A).

Proposed Trail-related Actions

Proposed New Trails to be Constructed in the Project Boundary

Proposed new trail-related actions include the following seven items:

- Lime Saddle Marina to Campground Trail (approximately 3.5 miles; hiking, bicycle use);
- Potter's Ravine North Fork Shoreline Trail (approximately 2 miles; multiple-use);
- Opening of an access road to bicycle use, south of the Loafer Creek Equestrian Campground;
- Loop Trails in the vicinity of Thermalito Forebay (approximately 2-4 miles; multiple-use wherever appropriate);

- Spur trails to facilitate shoreline access (Saddle Dam at Lake Oroville, fishing access at North Forebay; hiking use only);
- Realignment of a section of the Brad B. Freeman Trail in the vicinity of the Hyatt Powerplant Switchyard, in response to security concerns (multiple-use); and
- Lakeland Boulevard - Sycamore Hill Demonstration Trail (approximately 2 to 4 miles, depending on feasibility of alignment; hiking, bicycle use).

All but one of the trails listed above are entirely within the Project 2100 boundary; the latter one is partially within the boundary and requires additional planning and scoping and coordination with adjacent landowners. The approximate proposed locations of these new trails are depicted in Figure D-2 and are described further below.

One proposed new trail will connect the Lime Saddle Campground with the Lime Saddle BR/DUA/Marina, via Parish Cove (not shown in Figure D-2). As this campground and marina have no facilities to support and are currently not designated for equestrian use, the proposed trail would serve primarily hikers and bicyclists seeking to travel to and from the campground and the surrounding lakeshore. This 3.5-mile trail would be within the Lake Oroville Management Unit (as outlined in Chapter 5), which also includes trails at Bidwell Canyon and Loafer Creek (Figure D-2). DWR proposes to construct this trail in cooperation with DPR, which has secured grant funding for a bridge and a portion of the trail.

Another new trail would continue north from the existing Potter's Ravine Trail and would be multiple-use in designation. This 2-mile trail extension would be within the Lake Oroville Management Unit (Figure D-2). DPR proposes to construct this trail with grant funding.

Another proposed new trail would be designed primarily for bicycling and would run east/west from Lakeland Boulevard to connect to a multiple-use segment of the Dan Beebe Trail and/or Freeman Trail, near the Diversion Pool. Construction of this trail is contingent upon topographic and jurisdictional feasibility, requiring coordination and easements from landowners adjacent to the Project boundary. Thus, only portions of this trail would fall into the Diversion Pool Management Unit which includes other trails such as the Brad B. Freeman and Dan Beebe Trails that run along the Diversion Pool (Figure D-2). This new trail could be between two and four miles in length, depending on topography and cooperation from adjacent landowners. DWR will explore the feasibility of this project and coordinate with adjacent landowners and, if feasible, will construct this trail cooperatively with the administrator of the Supplemental Benefits Fund. If development of all or a significant portion of this new trail is successful, much of the nearby portion of the Dan Beebe Trail will be closed to bicycles and managed for hikers and equestrians only (see Proposed LOSRA and OWA Trail Use Designation Changes, below).

A graded dirt access and service road, which runs from near the Loafer Creek Equestrian Camp to near the Saddle Dam trailhead will be designated as a bicycle trail. This segment will allow bicyclists to travel between the Saddle Dam Trailhead and the

Loafer Creek Campground without encroaching on "equestrian only" trails and allow bicyclists to skirt the Equestrian Campground. This trail segment will be managed and maintained by DPR.

Trail access (<0.1 mile) to the shoreline at the Saddle Dam Trailhead Access site is proposed. A similar trail segment or segments are proposed for shoreline areas of the North Forebay – essentially spurs leading from the existing Brad Freeman Trail along the north shore. These trail spurs will require additional study to avoid impacts to giant garter snake habitat (these short spur trails are not shown in Figure D-2). DWR will construct these trails in coordination with DPR.

One or more new trail segments are proposed near the shoreline of Thermalito Forebay. Again, further study is needed to determine potential suitable trail routes and compatibility with giant garter snake habitat that may limit trail expansion in the Forebay area. If new trails could be feasibly constructed here and potential impacts to sensitive habitat minimized, trails around the south side of the North Forebay and north side of the South Forebay would create two new loop trail opportunities. This would result in a trail loop around both halves of the Forebay, as well as around the entire Forebay by connecting these new trails to the existing Brad B. Freeman Trail (Figure D-2). DWR would construct these trails in coordination with DPR.

The licensee will also provide a realignment of a section of the Brad B. Freeman Trail to eliminate security concerns posed by the current alignment in the vicinity of the Hyatt Powerplant Switchyard. The new alignment, to be designated and constructed to multiple-use standards, will cross the toe of Oroville Dam via an existing access road (mostly paved, with wide gravel shoulders) which climbs to the existing paved dam crest road near the top of the spillway. The dam crest road is typically used by bicyclists and hikers/walkers to the south, but will be generally managed as multiple-use under this new plan. Safety signs, directed at both trail users and motorists, will instruct caution and require equestrians to dismount and motorists to slow before and while crossing the spillway bridge.

Proposed LOSRA and OWA Trail Use Designation Changes

Many parties have collaborated to help draft a plan for use of Project trail resources with a goal to make optimum use of existing opportunities, while maintaining a safe and pleasant experience. Based on public input provided both inside and beyond the Relicensing Work Group and Settlement Negotiation processes, many alternatives were considered.

Most recently, a “Trails Focus Group” (TFG) convened with the purpose of discussing the trails issues collaboratively and with the goal of ultimately recommending a mix of trails and use designations that can be supported by a majority of trail users. Figure D-2 illustrates a proposal that received broad support and embodies some accommodation of several goals:

- Some separate-use trail segments predicated on widely-recognized safety concerns (Sycamore Hill portion of Dan Beebe Trail);
- The need to maintain connectivity of Project recreation areas for all trail users, to the degree practicable;
- A general multiple-use objective to make much of the Project's trail resources available to as many public trail users as possible;
- Some equestrian-only trail segments associated with the unique equestrian campground in the Loafer Creek area (much of the Roy Rogers Trail and a portion of the Loafer Creek Loop Trail); and
- A monitoring plan to protect natural and cultural resources associated with trail routing and maintenance.

Consistent with these goals, the licensee proposes to designate trails managed under this RMP as depicted in Figure D-2 and denoted in Table D-2. In summary, several areas currently closed to bicycle use are proposed to reopen to multiple-use: much of the Dan Beebe Trail (except Sycamore Hill); most of the Loafer Creek Loop Trail (except segment south of Equestrian Campground); and a necessary connecting segment of the Roy Rogers Trail (from the Loafer Creek Campground and parking area to the new bicycle-designated service/access road).

Additionally, areas of LOSRA currently closed to equestrian use will be designated open for such use, generally in the context of proposed multiple-use trails: all of the Bidwell Canyon Trail (from Lake Oroville Visitors Center to Saddle Dam), and the Brad Freeman Trail on the north shore of the Diversion Pool ("Burma Road") and around Thermalito Forebay.

Three segments of trail are proposed for "hiker and equestrian-only" use: the portion of the Dan Beebe Trail over Sycamore Hill; most of the Roy Rogers Trail; and a portion of the Loafer Loop Trail (segment parallel to the new bicycle-designated service/access road). An additional potential segment is contemplated at the end of the next paragraph.

Bicycle and hiker-only segments of trail, closed to equestrian use, will include the Loafer Creek service/access road (parallel to equestrian-only segment) and the proposed Lakeland-Sycamore Demonstration Trail (if feasible and when constructed). It is further proposed that if and when the latter is constructed, that nearby ("parallel") segments of the Dan Beebe Trail will be then designated as "equestrian and hiker-only."

Several segments of trail, colored black in Figure D-2, are intended for foot traffic only. Several are ADA-accessible, and all offer interpretive signage and other educational opportunities. In general, the overriding consideration for maintaining these trails in their current configuration is their narrow design reflecting their original pedestrian purpose.

Table D-2. Proposed trail use designation changes and new trails in the project area.

Trail	Length	Designation	
	Miles of Trail	Present	Proposed
Bidwell Canyon Trail	4.9	Hiking, Biking	Multiple-use
Brad B. Freeman Trail	41.0	Hiking, Biking ¹	Multiple-use ²
Chaparral Interpretive Trail	0.2	Hiking only	Hiking only
Dan Beebe Trail	14.3	Hiking, Equestrian	Multiple-use ³
Loafer Creek Campground/Day Use/Campfire Trail	1.7	Hiking only	Hiking only
Loafer Creek Loop Trail	3.2	Hiking, Equestrian	Multiple-use ⁴
Sewim Bo Trail	0.5	Multiple-use	Multiple-use
Potter's Ravine Trail	5.5	Multiple-use ⁵	Multiple-use ⁵
Roy Rogers Trail	4.0	Hiking, Equestrian	Hiking, Equestrian ⁶
Wyk Island Trail	0.2	Hiking only	Hiking only
Spur trail to Lake Oroville at Saddle Dam area	<0.1	NA (new)	Hiking only
Service road for bicycle access to Saddle Dam	0.7	NA (new)	Hiking, Biking
North and South Forebay Loop Trails (new segments connecting to Brad Freeman Trail)	2.0 - 3.0	NA (new)	Multiple-use
Spur trails to Thermalito Forebay shoreline	0.1 - 0.5	NA (new)	Hiking only
Potter's Ravine North Fork Shoreline Trail (new extension to Potter's Ravine Trail)	2.0	NA (new)	Multiple-use
Lakeland Boulevard – Sycamore Hill Demonstration Trail (parallel to Dan Beebe Trail)	2.0 - 4.0	NA (new)	Hiking, Biking

¹ Some portions of the Brad Freeman Trail outside of LOSRA are open to equestrian use.

² Additional segments of the Brad Freeman Trail on the north shore of the Diversion Pool (Burma Road) and around Thermalito Forebay would be opened to equestrian use.

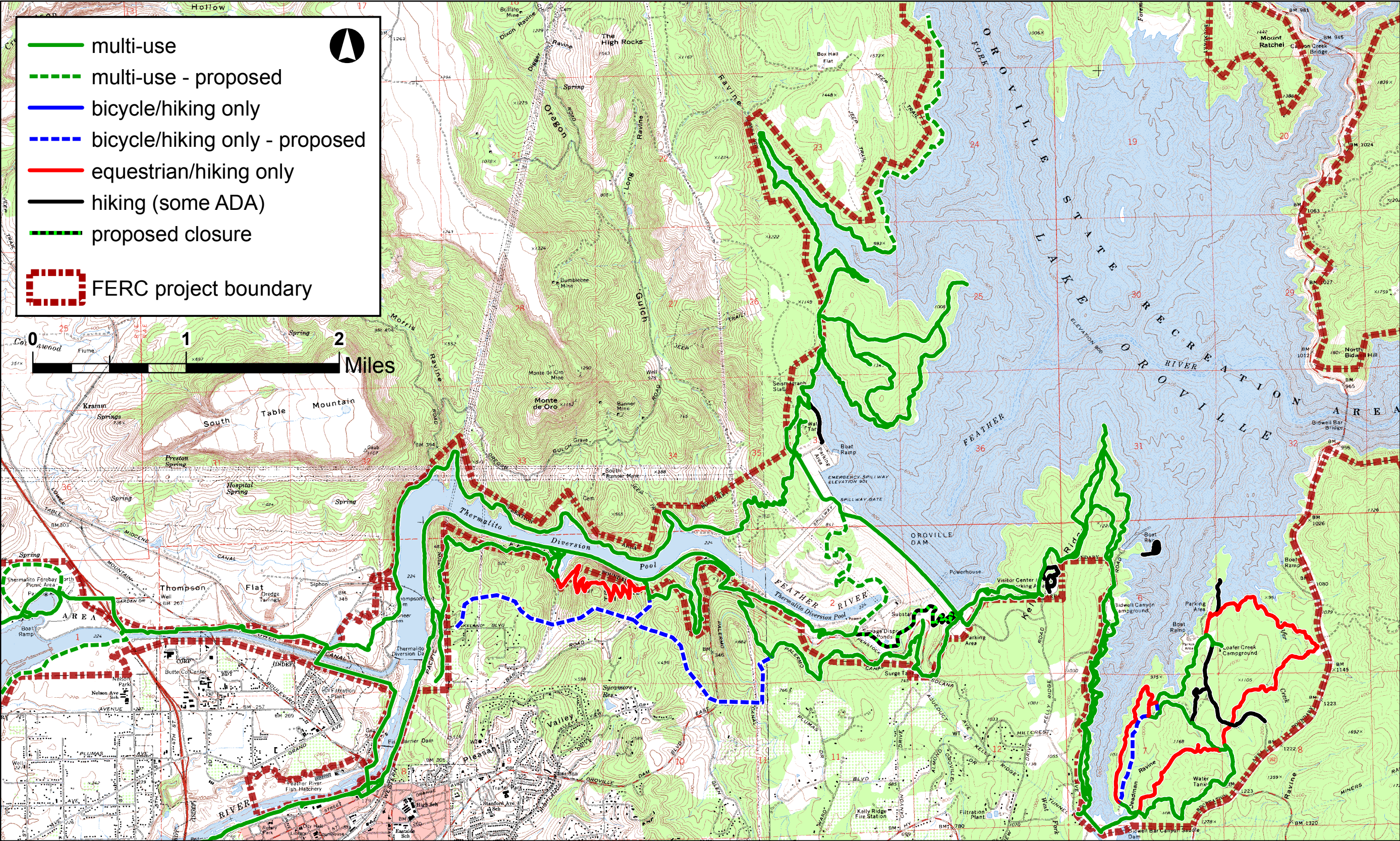
³ The Sycamore Hill segment would remain closed to bicycle use.

⁴ The segment of this trail south of the Equestrian Campground and parallel to the service/access road would remain closed to bicycle use.

⁵ All but a short pedestrian-only segment near Spillway cove is multiple-use.

⁶ A segment of this trail connecting the campground to the service/access road would be opened to bicycle use.

Figure D-2. Recreation Management Plan Proposed Trail Use Designation



This map illustrates the proposed trail network around the Oroville Dam and Reservoir. The legend in the top left corner defines the trail types and the project boundary:

- multi-use**: Solid green line
- multi-use - proposed**: Dashed green line
- bicycle/hiking only**: Solid blue line
- equestrian/hiking only**: Solid red line
- hiking (some ADA)**: Solid black line
- FERC project boundary**: Thick dashed red line

The map includes a scale bar (0 to 2 miles) and a north arrow. Key geographical features include the Oroville Reservoir, the Feather River, and the surrounding terrain. The FERC project boundary encompasses the reservoir and extends into the surrounding land. The map also shows various roads, including Highway 99, and other landmarks such as the Oroville Municipal Airport and the Oroville Dam.

Additional trail planning and design assessment is necessary to effectively balance public access and recreational needs or desires with management requirements to ensure appropriate levels of resource protection and public safety. Prior to modifying any trail use designation along an existing trail, particularly a change to multiple use, DPR and/or DWR will conduct a trail assessment to make sure that proposed modifications to trail use in LOSRA are safe and/or appropriate for multiple use. This trail assessment would include checking for adequate trail sight distance, slope, width, tread, signage, etc. Any issues raised in this trail assessment will be addressed prior to a change in trail use.

Proposed Trail Maintenance Changes

In terms of trail maintenance, the area with the highest percentage of survey respondents that were dissatisfied with trail condition was the OWA. Litter was the top reason for dissatisfaction. Measures for additional trash receptacles and litter pick-up along the Feather River in the OWA are included in the draft RMP, Appendix A.

The licensee proposes that general trail maintenance in the LOSRA and on other Project lands continues to follow the standards and frequency currently established. Trail condition and need for special maintenance will be monitored over time per the draft RMP Recreation Monitoring Program.

Schedule

The following schedule presented in Table D-3 proposes the period within the new license term when proposed actions will be implemented.

Table D-3. Implementation Schedule for the Comprehensive Non-motorized Trail Program.

Proposed Action	Proposed Implementation Timing
New Potter's Ravine Trail Segment	Period L-1
Lakeland - Sycamore Biking Trail	Period L-2 (feasibility review in L-1)
Saddle Dam Shoreline Access Trail	Period L-1
Service Road from Saddle Dam Area	Period L-1
Forebay Area Shoreline Access Trails	Period L-1
Forebay Area Trail Loop(s)	Period L-2
Lime Saddle Trail via Parish Cove	Period L-1

Costs

See Appendix A.



Equestrian and bike users pose for picture on project area trail.